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(See inside cover)

25X1

basic imagery interpretation report

Major Air Warning Radar Facilities in Cuba (S)

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WNINTEL

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FEBRUARY 1981
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INSTALLATION OR ACTIVITY NAME					COUNTRY
Major Air Warning Radar Facilities in Cuba					Cuba
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	See below	See below	See below	See below	See below

MAP REFERENCE

TPC Series E724, Various sheets, scale 1:50,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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Installation Name	Geographic Coordinates
Bahia Honda AW Radar Facility	22-58-30N 083-11-22W
Cabanas Radar Facility	22-59-52N 082-59-05W
Cabo San Antonio Radar Facility Low Sieve	21-52-08N 084-57-04W
Canasi Radar Facility	23-08-51N 081-51-48W
Ciego de Avila AW Radar Facility TALL KING	21-49-45N 078-51-28W
Cienfuegos Radar Facility	22-02-26N 080-25-23W
Holguin AW Radar Facility	20-48-22N 076-17-56W
Camaguey Airfield*	21-25-34N 077-50-10W
La Habana Radar Facility	23-08-54N 082-19-33W
San Antonio de Los Banos Airfield AW Radar	22-52-03N 082-30-28W
San Antonio de Los Banos AW Radar Facility	22-53-42N 082-30-05W
San Julian AW Radar Facility TALL KING	22-06-25N 084-09-18W
San Miguel AW Radar Facility	22-20-30N 079-53-58W
Santa Clara AW Radar Facility	22-30-16N 079-56-58W
Santa Cruz del Norte AW Radar TALL KING	23-08-03N 081-58-13W
Santa Fe AW Radar Facility	21-39-33N 082-45-48W
Siboney AW Radar Facility	19-58-03N 075-43-00W
Varadero Radar Facility	23-11-48N 081-07-42W
Vasquez AW Radar TALL KING	21-02-15N 076-41-50W

*Change of installation name to Ignacion Agramonte AW Radar Facility has been requested.

ABSTRACT

1. (S/D) This report describes activity observed at 19 major air warning (AW) radar facilities in Cuba. The report includes a location map, a table, and four annotated photographs; it describes the status of the facilities as of the latest observation prior to the cutoff date of

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INTRODUCTION

2. (S/D) Nineteen major AW radar facilities have been identified in Cuba (Figure 1). The facilities are divided into four categories: long range AW sites; medium range AW/ground control intercept (GCI) sites at major military airfields; regional AW sites; and coastal surveillance sites. Table 1 lists the facilities by category and gives the quantity and type of equipment at each facility.

BASIC DESCRIPTION

Long-Range AW Sites

3. (S/D) The long range AW sites are San Julian AW Radar Facility TALL KING in western Cuba, Santa Cruz del Norte AW Radar TALL KING east of Havana, Ciego de Avila AW Radar Facility in central Cuba, and Vasquez AW Radar TALL KING in eastern Cuba. Each of the four facilities includes a TALL KING as the primary radar and a similar combination of back-up equipment. During 1980, a SQUAT EYE radar was added to each facility, increasing the low altitude capability. The four facilities provide long-range overlapping early warning and acquisition capabilities for the entire island.

San Julian AW Radar Facility TALL KING

4. (S/D) San Julian AW Radar Facility TALL KING is 7.5 nautical miles (nm) southeast of Guane in western Cuba. The triangular site contains a TALL KING B, a FLAT FACE, a SQUAT EYE, a SIDE NET, and a SPOON REST A radar, all of which are field deployed. The facility provides radar support for San Julian Airfield [redacted], which is 1 nm southeast of the AW facility, and early warning acquisition for western Cuba. 25X1

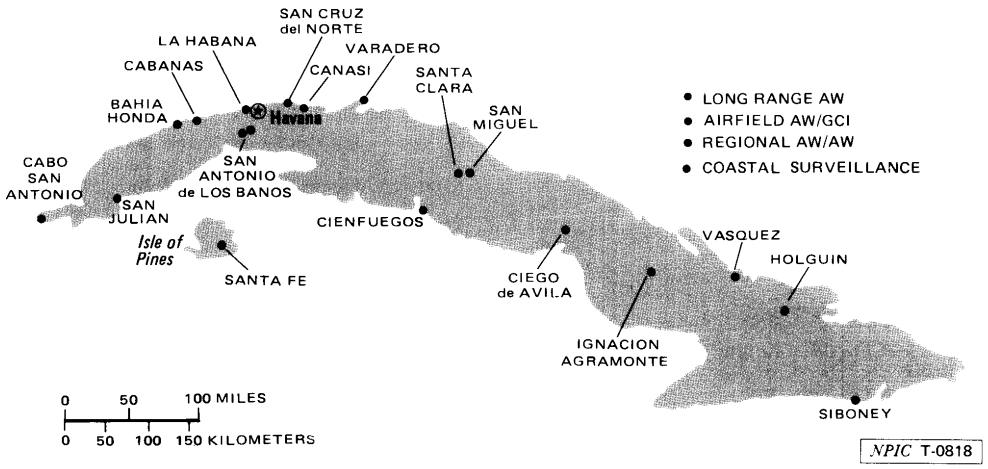
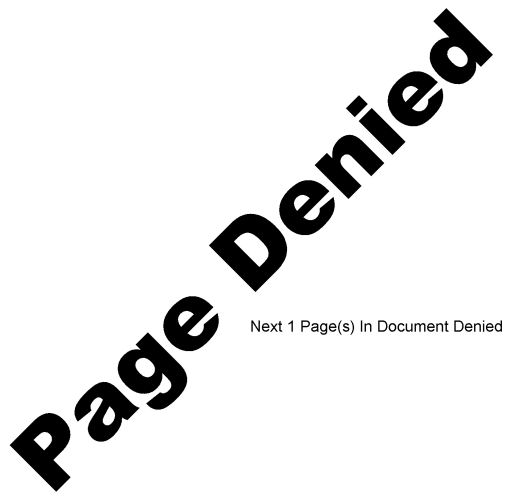


FIGURE 1. LOCATION OF MAJOR AW RADAR FACILITIES IN CUBA

Table 1.
Number and Types of Radars at Major AW Facilities, Cuba

This table in its entirety is classified SECRET/WNINTEL [redacted] 25X1 25X1

	TALL KING	BAR LOCK	FLAT FACE	SQUAT EYE	SPOON REST	SIDE NET	ROCK STONE CAKE	SHEET BEND
Range (km)	550-750	370	208	160	150	185	185	55-70(est)
Long Range AW								
San Julian	1		1	1	1	1		
Santa Cruz del Norte	1		1	1	1	1		
Ciego de Avila	1		1	1	1	1		
Vasquez	1		2	1	2	1		
Airfield AW/GCI								
San Antonio de Los Banos Afld		2	1		2	2		
Santa Clara		2			3	2		
Ignacion Agramonte		1	1		1	1		
Holguin		2	1		2	2		
Regional AW								
Bahia Honda		1	1	1		1		
Santa Fe		1	1	1	1	1		
La Habana		1	1			1	1	
San Antonio de Los Banos		No electronics order of battle since mid-1980						
Varadero		1			1	1		
San Miguel		1	2					
Siboney		1	1		1	1		
Coastal Surveillance								
Cabo San Antonio							1	
Cabanas							1	
Canasi							1	
Cienfuegos							1	



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Santa Cruz Del Norte AW Radar TALL KING

5. (S/D) Santa Cruz del Norte AW Radar TALL KING (Figure 2) is 20 nm east of Havana. It consists of three areas. The TALL KING area contains a TALL KING A radar on a building and an associated support building. A second area contains four radars—one FLAT FACE, one SQUAT EYE, one SIDE NET, and one SPOON REST C—which are on three radar mounds and two support buildings. The housing and support area contains 12 support buildings and one vehicle equipment shed. This facility provides early warning acquisition for northern Cuba, including the Havana area.

Ciego De Avila AW Radar Facility TALL KING

6. (S/D) Ciego de Avila AW Radar Facility TALL KING is 5.5 nm southwest of Ciego de Avila in central Cuba. The TALL KING area contains a TALL KING A radar on a building and an associated support building. Other radars include one SIDE NET on a mound, one SQUAT EYE, one FLAT FACE, and one SPOON REST A. The associated equipment for each radar is under a shed in a revetment. Three additional revetments are unoccupied. A housing and support area contains 11 support buildings and one vehicle/equipment shed. The facility provides early warning acquisition for central Cuba.

Vasquez AW Radar TALL KING

7. (S/D) Vasquez AW Radar TALL KING is 6.5 nm southeast of Vasquez in eastern Cuba. The TALL KING area contains a TALL KING A radar on a building and an associated support building. Two drive-in radar positions were under construction and three more have been completed. One of these is occupied by a SIDE NET radar. Other radars include two FLAT FACE, two SPOON REST A, and one SQUAT EYE. A housing area contains 14 support buildings, and a support area contains two support buildings and a vehicle/equipment shed. This facility provides early warning acquisition for eastern Cuba.

AW/GCI Facilities

8. (S/D) The medium-range AW/GCI facilities at major military airfields are San Antonio de Los Banos Airfield AW Radar south of Havana, Santa Clara AW Radar Facility in central Cuba, Ignacion Agramonte Airfield in east central Cuba, and Holguin AW Radar Facility in eastern Cuba. The function of these facilities is to provide medium-range AW and GCI capabilities for Cuban fighter bases. During the past year, upgrading at San Antonio de Los Banos, Santa Clara, and Holguin included an increase in the number of BAR LOCK, the primary radar, to two at each airfield and phasing out the ROCK/STONE CAKE height finders.

San Antonio De Los Banos Airfield AW Radar

9. (S/D) San Antonio de Los Banos Airfield AW Radar (Figure 3) is at the intersection of the runways at San Antonio de Los Banos Airfield [redacted], a major fighter base 15 nm south of Havana. The radar site contains four radar mounds, one drive-through and one double drive-through equipment revetments, nine support buildings, and three sheds. Radars include two BAR LOCK and two SIDE NET. Two SPOON REST C and one FLAT FACE are in front of hangarettes across the end of the runway from the radar site. In 1979, this facility contained only one BAR LOCK, one SIDE NET, and one ROCK/STONE CAKE radar. A nearby facility, San Antonio de Los Banos AW Radar Facility, contained one BAR LOCK, one SIDE NET, and one FLAT FACE radar. In 1980, all the equipment was removed from this facility and possibly added to the airfield facility. 25X1

Santa Clara AW Radar Facility

10. (S/D) Santa Clara AW Radar Facility is 0.8 nm north of Santa Clara Airfield [redacted] a major fighter base in central Cuba. This radar site consists of five radar hardstands, one with a drive-down ramp leading to a drive-through equipment bunker and two with drive-in equipment bunkers. Support facilities include three barracks, an administration building, seven support buildings, two large maintenance buildings, three generator sheds, and physical training aids. Radars at this facility include two BAR LOCK, two SIDE NET, two SPOON REST mounted on a building, and one SPOON REST B. One BAR LOCK and one SIDE NET were added during 1980. 25X1

Ignacion Agramonte AW Radar Facility

11. (S/D) Ignacion Agramonte Airfield, 5 nm northeast of Camaguey in central Cuba, is primarily civilian but is frequently used by fighter aircraft on training exercises.[1] The radar site is at the northeast end of the airfield and consists of four radar mounds, one administration building, one barracks, three support buildings, and three small vehicle/equipment storage sheds. Radars include one BAR LOCK one SIDE NET, one FLAT FACE, and one SPOON REST A

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Holguin AW Radar Facility

12. (S/D) Holguin AW Radar Facility is 0.5 nautical mile north of Holguin Airfield [redacted] 25X1
[redacted] a major fighter base in eastern Cuba. The radar site consists of four radar mounds, two roof- 25X1
covered and two open equipment revetments, two bunkers, an administration building, a storage shed, and four support buildings. Radars include two BAR LOCK, two SIDE NET, one FLAT FACE, and two SPOON REST C.

Regional AW Sites

13. (S/D) The regional AW sites are Bahia Honda AW Radar Facility, La Habana Radar Facility, and Varadero Radar Facility on or near the northwest coast of Cuba; San Antonio de Los Banos AW Radar Facility south of Havana; San Miguel AW Radar Facility in central Cuba; Santa Fe AW Radar Facility on the Isle of Pines; and Siboney AW Radar Facility near the southeastern coast of Cuba. The first five of these facilities form a line across that part of Cuba directly opposite the United States, and Siboney AW Radar Facility is near the US Naval Base at Guantanamo. All provide medium-range AW capabilities.

Bahia Honda AW Radar Facility

14. (S/D) Bahia Honda AW Radar Facility (Figure 4) is near the northern coast of Cuba, 50 nm west of Havana. It consists of two radar mounds, two open revetments, 11 roof-covered revetments, one barracks/administration building, two vehicle/equipment sheds, two support buildings, and a small POL storage area. Radars include one BAR LOCK, one FLAT FACE, one SQUAT EYE, and one SIDE NET.

Santa Fe AW Radar Facility

15. (S/D) Santa Fe AW Radar Facility is 5 nm southwest of Santa Fe on the Isle of Pines. The facility consists of two radar mounds, four drive-through revetments with sheds for associated equipment, two probable equipment sheds, two probable barracks, and three support buildings. Radars include one BAR LOCK, one SIDE NET, one FLAT FACE, one SQUAT EYE, and one probable SPOON REST.

La Habana Radar Facility

16. (S/D) La Habana Radar Facility is 2 nm east of the entrance to La Habana Port Facilities [redacted] 25X1
[redacted] It consists of four mounds, two support buildings, and four roofless buildings. Two of the 25X1
mounds are occupied, one by a FLAT FACE and one by a ROCK/STONE CAKE radar.

San Antonio de Los Banos AW Radar Facility

17. (S/D) San Antonio de Los Banos AW Radar Facility, 1.5 nm north of San Antonio de Los Banos Airfield, is no longer operational. By mid-1980, all equipment had been removed and was probably added to the airfield AW radar facility.

Varadero Radar Facility

18. (S/D) Varadero Radar Facility is at the end of a peninsula on the north coast of Cuba, 3.5 nm northeast of Varadero. It contains two radar mounds, eight drive-in covered equipment revetments, eight drive-in uncovered equipment revetments, four drive-through covered revetments, one revetted control building, two sheds, two probable barracks, one administration building, five support buildings, one vehicle storage garage, and one guard shed. Radars include one BAR LOCK, one SIDE NET, and a possible SPOON REST. The BAR LOCK was added in early July 1980.

San Miguel AW Radar Facility

19. (S/D) San Miguel AW Radar Facility is 6.5 nm northeast of Santa Clara in central Cuba. It consists of two radar mounds, one drive-through radar position, four revetted drive-through equipment sheds, one revetted drive-in equipment shed, a circular control building, two administration buildings/barracks, one vehicle parking garage, and one support building. Radars at this facility include one BAR LOCK and two FLAT FACE.

Siboney AW Radar Facility

20. (S/D) Siboney AW Radar Facility is 0.6 nm northwest of Siboney near the southeastern coast of Cuba. It consists of two radar mounds, two revetted radar positions with sheds that have movable roof sections, one open revetted radar position, six covered drive-through equipment revetments, two open drive-through equipment revetments, five drive-in equipment revetments, and a control building. Support facilities include two barracks and two vehicle/equipment buildings. Radars include one BAR LOCK, one SIDE NET, one FLAT FACE, and one SPOON REST. The FLAT FACE and SPOON REST are in the buildings with movable roof sections.

Coastal Surveillance Facilities

21. (S/D) The coastal surveillance sites are Cabo San Antonio Radar Facility LOW SIEVE in western Cuba, Cabanas Radar Facility west of Havana, Canasi Radar Facility east of Havana, and Cienfuegos Radar Facility in south-central Cuba. These facilities are on the coastline primarily for surveillance of sea targets.

Cabo San Antonio Radar Facility LOW SIEVE

22. (S/D) Cabo San Antonio Radar Facility LOW SIEVE (Figure 5) is collocated with a lighthouse on the extreme western tip of Cuba facing west across the Yucatan Passage. The radar site consists of a large control building, three support buildings, and a vehicle/equipment building. One SHEET BEND radar is mounted on a platform at the north end of the control building and apparently replaced a mast-mounted LOW SIEVE radar in 1977. A lighthouse, four support buildings, and a radio beacon are adjacent to the radar facility.

Cabanas Radar Facility

23. (S/D) Cabanas Radar Facility is 1 nm north of Cabanas Naval Base [redacted] on the north coast of Cuba. The facility consists of three drive-in radar positions, a control building, two probable barracks, four support buildings, and a radio beacon. A van-mounted SHEET BEND radar occupies one of the radar positions. For a five-week period during the summer of 1980, this facility was occupied by an antiaircraft battery. 25X1

Canasi Radar Facility

24. (S/D) Canasi Radar Facility is situated on a bluff on the north coast of Cuba, 4 nm east of Santa Cruz del Norte. It consists of one radar mound, two equipment revetments, two equipment bunkers, and seven support buildings. The radar mound is occupied by a probable SHEET BEND radar.

Cienfuegos Radar Facility

25. (S/D) Cienfuegos Radar Facility is 6 nm south of Cienfuegos in south central Cuba. This facility consists of five drive-in bunkered positions, one vehicle/equipment building, two barracks/administration buildings, two support buildings, and a clutter screen. A van-mounted SHEET BEND radar and SQUARE HEAD radar are usually in the radar position beside the clutter screen; however, in mid-September, this equipment was removed and placed beside the position. Change at this facility may be related to the construction of a major naval base, Punta Movida Naval Facility [redacted] 1.5 nm northwest of the radar facility. 25X1

REFERENCES

IMAGERY

(S/D) All available imagery of suitable interpretability acquired through [redacted] was used in the preparation of this report. 25X1

MAPS OR CHARTS

TPC. Series E724, Various sheets, scale 1:50,000 (UNCLASSIFIED)

DOCUMENT

1. NPIC. [redacted] RCA-05/0002/80, *Major Air Facilities, Cuba (S)*, Jul 80 (TOP SECRET CO-DEWORDS / [redacted] 25X1 25X1

* Extracted information is classified SECRET/ [redacted] 25X1

REQUIREMENT

[redacted] 25X1

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted], Third World Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1

[redacted] also contributed to this report. 25X1

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